peritoneal exudate eosinophils harvested from polymyxin B-treated guinea pigs are similar to those harvested from untreated animals [9]. Certain differences are noteworthy. Firstly, guinea pig eosinophils had a lower resting production of hydrogen peroxide, which is not due to decreased oxidative metabolism since stimulated guinea pig eosinophils had more active oxidative metabolism. Increased resting hydrogen peroxide release by human eosinophils could represent modification of peripheral blood eosinophils by circulating factors [17]. Alternatively, the site of hydrogen peroxide release in human eosinophils may be more accessible to measurement by our extracellular assay system. Stimulated guinea pig eosinophils appear to release more hydrogen peroxide than human eosinophils; this may represent more active oxidative metabolism or a more accessible site of production. The greater amount of hydrogen peroxide release following stimulation by preopsonized zymosan may reflect differences in the numbers of C3b receptors present on human and guinea pig eosinophils.

Previous studies of eosinophils have focused on quantitative differences between eosinophils and neutrophils [16–18]. Eosinophils, usually obtained from hypereosinophilic patients, were more active than neutrophils [18–20]. Preliminary studies in our laboratory note few quantitative differences between eosinophils and neutrophils. An important quantitative difference is that eosinophils do produce small amounts of hydrogen peroxide under resting conditions, whereas neutrophils have essentially no detectable hydrogen peroxide production. Eosinophils produce approximately 10-fold more hydrogen peroxide than activated peritoneal exudate macrophages, which have a relatively low level of oxidative metabolism [14,20]; this difference is more than would be expected on the basis of laboratory variation.

Differences in hydrogen peroxide release between eosinophils from normal persons and patients with hypereosinophilic syndrome were observed, consistent with our observations that metabolic heterogeniety exists among human eosinophils [12]. Unfortunately the small number of patients available for study make it difficult to draw any conclusions. They do suggest that a worthwhile question is whether elevated hydrogen peroxide production might be responsible for enhanced parasite killing [17], especially in view of our observations that circulating factors can enhance oxidative metabolism of eosinophils [21]. The demonstration that large amounts of hydrogen peroxide can be elicited after appropriate stimuli and that small amounts are continuously secreted are further support for the hypothesis that eosinophils play an important effector role in parasitic infection.

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The *2nd European Symposium on Psoriasis*, cosponsored by the European Society for Dermatological Research and the Italian Society of Dermatology and Venereology, will be held at the Adriatico Palace Hotel, Trieste, Italy, October 7–9, 1983. Abstracts should be received by the Scientific Secretary (Dr. E. Crivellato) before May 1, 1983. Registration forms should be submitted to the Coordinator (Dr. F. Kokelj) by July 31, 1983. For further information: Dr. C. Scarpa, Clinica Dermatologica, Università degli Studi di Trieste, c/o Ospedale Maggiore, Via Stuparich 1, 34125 Trieste, Italy (040/775005).
